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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,203	02/13/2006	Edwin Breuning	LEcc020141us	8093
30996 7590 04/03/2007 ROBERT W. BECKER & ASSOCIATES 707 HIGHWAY 333 SUITE B TIJERAS, NM 87059-7507			EXAMINER LAZO, THOMAS E	
			ART UNIT 3745	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/568,203		BREUNING ET AL.	
	Examiner		Art Unit	
	Thomas E. Lazo		3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-15, 17-21 and 24 is/are rejected.
- 7) ☒ Claim(s) 16, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/13/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 15, the valve means (13) that has a valve member, a valve seat, and a helical spring is not in series with the retroactive device as required by claim 12. See figures 3 and 4.

Regarding claim 19, the valve means (13) being “disposed in a hydraulic line between a pump and a rotary slide valve” contradicts the valve means being hydraulically in series with the retroactive device as required by claim 12. See figure 4.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 14, and 24, and 19, as far as it is definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Kawamuro (5,823,090). Kawamuro discloses a hydraulic servo-steering system with a hydraulic servo-valve device 21, a retroactive device 22, a valve means 23 that,

when pressure is applied in the central position of the servo-valve, is adapted to produce a pressure differential between an external chamber and an internal chamber of the valve means 23, wherein the retroactive device 22 includes means for hydraulically producing a restoring moment into a central position that produces the restoring moment as a function of the pressure differential between a pressure side and a low-pressure side, the valve means 23 is disposed hydraulically in series with the retroactive device 22, the valve means is an electrically controlled proportional valve the precedes the retroactive elements.

22. (New) The retroactive device according to claim 12, wherein a pressure limiting means precedes said retroactive elements.

23. (New) The retroactive device according to claim 22, wherein said pressure limiting means is a cut-off control slide.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura, as applied to claim 12 above, in view of applicant's admitted prior art of figure 2. Kawamura discloses all of the claimed subject matter except for a grooved device disposed on the side of a rotary slide and a bush portion disposed on the side of a control bush, wherein said bush portion

separates said external chamber from said internal chamber, and wherein said bush portion is provided with radial guides for retroactive elements that, under a hydraulic pressure acting radially from said external chamber on deflection of said servo-valve device out of a central position, are adapted to be urged into grooves of said grooved device for achieving a retroactive torque.

Applicants admitted prior art of figure 2 clearly teaches all of the limitations of claim 13.

Since Kawamura and applicant's admitted prior art are similar retroactive devices that produce a restoring moment, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the retroactive device of Kawamura, based on the teachings of applicant's admitted prior art of figure 2, to have a grooved device disposed on the side of a rotary slide and a bush portion disposed on the side of a control bush, wherein said bush portion separates said external chamber from said internal chamber, and wherein said bush portion is provided with radial guides for retroactive elements that, under a hydraulic pressure acting radially from said external chamber on deflection of said servo-valve device out of a central position, are adapted to be urged into grooves of said grooved device for achieving a retroactive torque.

Claims 17, 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura, as applied to claim 12 above. Regarding claims 17 and 18, Kawamura discloses all of the claimed subject matter except for the pressure differential during operation in the central position of the servo-valve is at least 2 bar or approximately 5 - 10 bar.

Since the applicant has not disclosed that the pressure differential being 2 bar or approximately 5 – 10 bar solves any stated problem or is for any particular purpose above the fact that it is an advantageous pressure range and it appears that the pressure differential of Kawamura would perform equally well with a range of at least 2 bar or 5-10 bar as claimed by applicant, it would have been an obvious matter of engineering expedience to further modify the pressure differential of Kawamura to be at least 2 bar or 5-10 bar as claimed for the purposes of controlling the feel of steering at different vehicle speeds.

Regarding claims 20 and 21, Kawamura discloses all of the claimed subject matter except for the valve means being a hydraulically pilot-controlled pressure control valve or an electrically pilot-controlled pressure control valve.

Official notice is taken that hydraulically pilot-controlled valve and electrically pilot-controlled valves are well known ways to operate a valve. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the valve means of Kawamura to be a hydraulically pilot-controlled pressure control valve or an electrically pilot-controlled pressure control valve as a matter of engineering expedience.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of four patents.

Eberhart, Sano, Nakamura et al., and Yoshida are cited to show hydraulic servo steering systems with retroactive devices.

Allowable Subject Matter

Claims 16, 22, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

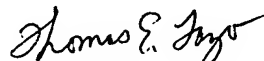
Claim 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thomas E. Lazo
Primary Examiner
Art Unit 3745
March 27, 2007